

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/43705

## A. CLASSIFICATION OF SUBJECT MATTER

IPC: H04M 15/00, 17/00

USPC: 379/114.2, 114.06

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 379/114.2, 114.06, 114.15, 114.16, 114.18, 114.19, 114.26, 93.02, 93.04, 93.22, 144.01, 144.06, 144.07, 144.08

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
Please See Continuation Sheet

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2004/0218741 A1 (WELTON) 04 November 2004 (04.11.2004), paragraphs [0031] through [0060]	1-54
Y	US 2004/0077334 A1 (JOYCE et al) 22 April 2004 (22.04.2004), paragraphs [0084] through [0109] and figures 1 and 2.	1-54
Y	US 2003/0236755 A1 (DAGLETT, JR.) 25 December 2003 (25.12.2003), paragraphs [0013] and [0078].	6
Y	US 2003/0050043 A1 (OHRSTROM et al) 13 March 2003 (13.03.2003), paragraphs [0049]-[0054] and [0061]-[0063].	1-2, 16, 30, 35, 37-38, 44-45, 50-51

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

## \* Special categories of cited documents

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier application or patent published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date of the invention

\*T\*

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principles or theory underlying the invention

\*X\*

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\*

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

\*Z\*

document member of the same patent family

Date of the actual completion of the international search

06 July 2006 (06.07.2006)

Date of mailing of the international search report

10 AUG 2006

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
Facsimile No. (571) 273-3201

Authorized officer

BINH K. TIEU  
Telephone No. (703) 305-3900

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/43705

## Continuation of B. FIELDS SEARCHED Item 3:

WEST, EAST

search terms: security, transmit\$3, transmission, format\$3, prepaid service, message, encoded, request, encod\$3, encrypted, encod\$3, decod\$3, encript\$3, decript\$3, pin-based, transaction, platform, pin, conduit interface, pre-paid, prepay\$4, pre-pay, supplies interface, posa-based, pos, point, sals, pa\$3 in advanced, vending machine

# PATENT COOPERATION TREATY

REC'D 15 AUG 2006

WIPO PCT

From the

INTERNATIONAL SEARCHING AUTHORITY

## PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:  
KEVIN J. ZIMMER  
C/O COOLEY GODWARD, LLP  
FIVE PALO ALTO SQUARE  
3000 EL CAMINO ROAD  
PALO ALTO, CA 94306-2155

Date of mailing (day/month/year) **10 AUG 2006**

Applicant's or agent's file reference  
EWIR00400WO

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No. <b>PCT/US05/43705</b>	International filing date (day/month/year) <b>02 December 2005 (02.12.2005)</b>	Priority date (day/month/year) <b>07 December 2004 (07.12.2004)</b>
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International Patent Classification (IPC) or both national classification and IPC

IPC: **H04M 15/00, 17/00**  
USPC: **379/114.2, 114.06**

Applicant  
**EWI HOLDING, INC.**

**1. This opinion contains indications relating to the following items:**

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

**2. FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

**3. For further details, see notes to Form PCT/ISA/220.**

Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Date of completion of this opinion <b>06 July 2006 (06.07.2006)</b>	Authorized officer <b>BRNH K. TIEU</b> Telephone No. (703) 305-3900
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Form PCT/ISA/237 (cover sheet) (April 2005)

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US05/43705

Box No. 1 Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of:
- ☒ the international application in the language in which it was filed
  - ☐ a translation of the international application into \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
- a. type of material
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material
    - ☐ on paper
    - ☐ in electronic form
  - c. time of filing/furnishing
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in electronic form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
PCT/US05/43705

Box No. V Reasoned statement under Rule 43 *bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Claims 1-54 YES

Claims NONE NO

Inventive step (IS)

Claims NONE YES

Claims 1-54 NO

Industrial applicability (IA)

Claims 1-54 YES

Claims NONE NO

2. Citations and explanations:

Please See Continuation Sheet

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
PCT/US05/43705

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

V. 2. Citations and Explanations:

I. Claims 1-2, 16, 30, 37-38, 44-45 and 50-51 lack an inventive step under PCT Article 33(3) as being obvious over Welton (Pub. No.: US 2004/0218741 A1) in view of Joyce et al. (Pub. No.: 2004/0577334 A1).

Regarding claims 1-2, 16, 30, 35, 37-38, 44-45 and 50-51, Welton teaches a platform and a method for processing prepaid service transaction. Welton teaches the platform, as shown in figure 2, such as the "Issuer" or "Card Issuer" 202 comprising the Issuer Processing System 210, Service Provider ID Database 214 and Prepaid Card Database 212 (see paragraphs [0031] and [0032]). Welton further teaches that the "Card Issuer" or platform has different interfaces for receiving different transaction requests for different types of prepaid services from POS terminals such as POS terminal of Card Retailer 206 or from Card Customer 208, and routing the requests to corresponding supply interfaces associated with types of prepaid services (see flow chart in figure 3, paragraphs [0033]-[0043] and [0047]-[0050]). Welton further teaches that the platform may operate as a conduit, which communicates simultaneously with a plurality of different providers for querying their identifiers (see paragraph [0060]).

It should be noticed that Welton teaches the "virtual prepaid card" is assumed to be obtained or purchased at the retail store or somewhere prior to fulfill the credit by contacting the issuer 202 see paragraph [0047]. Welton fails to clearly teach the "prepaid card" being obtained or purchased online with PIN information provided directly from a prepaid service provider via one of the supply interface in response to one of the transaction requests. However, however, Joyce et al. (Hereinafter, "Joyce") teaches an enhanced communication platform, as shown in figure 1, comprising two different supply interfaces: one called Network manager 104 for providing different communications services to subscribers and the other interface called Call Manager 102. The Call Manager 102, as shown in figure 2, operates as a conduit which interfaces to different sales agents each presented card prepaid providers to provide card with PINs associated with prepaid services providers (see paragraphs [0084], [0091] and [0106]-[0109]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of the features of the "virtual prepaid card" being obtained or purchased online with a PIN information provided directly from a prepaid service provider via one of the supply interface in response to one of the transaction requests, as taught by Joyce, into view of Welton in order to provide delivery of advanced communication services to customers, without use of PIN access cards at individual cost to a local telephone company, service provider, or the subscribing customer.

Regarding claim 3, Welton further teaches limitations of the claim in paragraph [0034] and Joyce in paragraph [0106].

Regarding claim 4, Welton further teaches limitations of the claim in paragraphs [0031] and [0033]-[0034].

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
PCT/US05/43705

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Regarding claim 5, Joyce further teaches limitations of the claim in paragraph [0089].

Regarding claims 7-9, 12-15 and 17, Welton further teaches limitations of the claims in paragraphs [0056]-[0040].

Regarding claim 18, note the call center agent 70 remotely connected to and requested new PIN for an access PIN card from the Card Manager (see paragraphs [0086]-[0089]). Regarding claims 10-11, Welton teaches limitations of the claims in paragraphs [0031]-[0034].

Regarding claim 18, note in Joyce references, the call center agent 70 remotely connected to and requested new PIN for a access PIN card from the Card Manager (see paragraphs [0086]-[0089]).

Regarding claim 19, Joyce further teaches limitations of the claim in paragraph [0109].

Regarding claims 20-21, Joyce further teaches limitations of the claims in LAN/WAN 57 of figure 2.

Regarding claims 31-34, Welton teaches limitations of the claims in paragraphs [0038]-[0040].

Regarding claim 36, Joyce teaches limitations of the claim in paragraphs [0106]-[0109].

Regarding claims 39-42, 46-49 and 52-54, the rejections of the claims are set the same as in claims 2-15 above.

II. Claim 6 lacks an inventive step under PCT Article 33(3) as being obvious over the prior art as applied in the immediately preceding paragraph and further in view of Dagelet, JR. (Pub. No.: US 2003/0236755 A1).

Regarding claim 6, Welton and Joyce, in combination, teaches all subject matters as claimed above, except for the feature of encoding the request messages in formats correspondence to types of prepaid services. However, Dagelet, JR. teaches such features in paragraphs [0013] and [0078] for security purposes.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the feature of encoding the request messages in formats correspondence to types of prepaid services, as taught by Dagelet, JR., into view of Welton and Joyce in order to provide security during transmissions.

III. Claims 1-2, 16, 30, 35, 37-38, 44-45 and 50-51 lack an inventive step under PCT Article 33(3) as being obvious over Welton (Pub. No.: US 2004/0218741 A1) in view of Olmstrom et al. (Pub. No.: US 2003/0050045 A1).

Regarding claims 1-2, 16, 30, 35, 37-38, 44-45 and 50-51, Welton teaches a platform and a method for processing prepaid service transaction. Welton teaches the platform, as shown in figure 2, such as the "Issuer" or "Card Issuer" 202 comprising the Issuer Processing System 210, Service Provider ID Database 214 and Prepaid Card Database 212 (see paragraphs [0031] and [0032]). Welton further teaches that the "Card Issuer" or platform has different interfaces for receiving different transaction requests for different types of prepaid services from POS terminals such as POS terminal of Card Retailer 206 or from Card Customer 208, and routing the requests to corresponding supply interfaces associated with types of prepaid services (see flow chart in figure 3, paragraphs [0033]-[0043] and [0047]-[0050]). Welton further teaches that the platform may operate as a conduit, which communicates simultaneously with a plurality of different providers for querying their identifiers (see paragraph [0050]).

It should be noticed that Welton teaches the "virtual prepaid card" is assumed to be obtained or purchased at the retail store or somewhere prior to fulfill the credit by contacting the issuer 202 see paragraph [0047]. Welton fails to clearly teach the "prepaid card" being obtained or purchased online with PIN information provided directly from a prepaid service provider via one of the supply interface in response to one of the transaction requests. However, Lowever, Olmstrom et al. (Hereinafter, "Olmstrom") teaches a system and a method for refilling mobile telephone prepaid phone cards via mediums including a computer network and refill terminals located at retail shop. Olmstrom teaches a distributor operates as a conduit which interfaces to different sales agents (i.e., telecommunication network operators, retailers, etc.) each prescribed card prepaid providers to provide card with refill codes or PINs associated with prepaid services providers (see paragraphs [0049]-[0054] and [0061]-[0063]).

Therefore, it would have been obvious to one of ordinary skill in the art the time the invention was made to incorporate the teachings of the features of the "virtual prepaid card" being obtained or purchased online with a PIN information provided directly from a prepaid service provider via one of the supply interface in response to one of the transaction requests, as taught by Olmstrom, into view of Welton in order to provide delivery of advanced communication services to customers, without use of PIN access cards at minimal cost to a local telephone company, service provider, or the subscribing consumer.

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference EWIR00400WO	<b>FOR FURTHER ACTION</b>		See item 1 below
International application No. PCT/US2005/043705	International filing date (day/month/year) 02 December 2005 (02.12.2005)	Priority date (day/month/year) 07 December 2004 (07.12.2004)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form: PCT/ISA/237			
Applicant EWI HOLDINGS, INC.			

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis, 1a.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following issues:

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Box No. I | Basics of the report  |
| <input type="checkbox"/> Box No. II           | Priority  |
| <input type="checkbox"/> Box No. III          | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  |
| <input type="checkbox"/> Box No. IV           | Lack of unity of invention  |
| <input checked="" type="checkbox"/> Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement |
| <input type="checkbox"/> Box No. VI           | Certain documents cited   |
| <input type="checkbox"/> Box No. VII          | Certain defects in the international application  |
| <input type="checkbox"/> Box No. VIII         | Certain observations of the international application   |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis 3(c) and 93bis 1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis 2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. +41 22 738 82 70	Date of issuance of this report 13 June 2007 (13.06.2007)
	Authorized officer  <b>Beate Giffö-Schmitt</b>  e-mail: p003.pct@wipo.int



# PATENT COOPERATION TREATY

REC'D 15 AUG 2006

WIPO PCT

From the

INTERNATIONAL SEARCHING AUTHORITY

## PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:  
KEVIN J. ZIMMER  
C/O COOLEY GODWARD, LLP  
FIVE PALO ALTO SQUARE  
3000 EL CAMINO ROAD  
PALO ALTO, CA 94306-2155

Date of mailing  
(day/month/year) **10 AUG 2006**

Applicant's or agent's file reference  
EWIR00400WO

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No. <b>PCT/US05/43705</b>	Internationals' filing date (day/month/year) <b>02 December 2005 (02.12.2005)</b>	Priority date (day/month/year) <b>07 December 2004 (07.12.2004)</b>
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International Patent Classification (IPC) or both national classification and IPC

IPC: **H04M 15/00, 17/00**  
USPC: **379/114.2, 114.06**

Applicant  
**EWI HOLDING, INC.**

**1. This opinion contains indications relating to the following items:**

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
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**2. FURTHER ACTION**

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For further options, see Form PCT/ISA/220.

**3. For further details, see notes to Form PCT/ISA/220.**

Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Date of completion of this opinion  <b>06 July 2006 (06.07.2006)</b>	Authorized officer <b>BINH K. TIEU</b> Telephone No. (703) 305-3900
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Form PCT/ISA/237 (cover sheet) (April 2005)

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US05/43705

Box No. 1 Basis of this opinion

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- a. type of material
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material
    - ☐ on paper
    - ☐ in electronic form
  - c. time of filing/furnishing
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in electronic form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
PCT/US05/43705

Box No. V Reasoned statement under Rule 43 *bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Claims 1-54 YES

Claims NONE NO

Inventive step (IS)

Claims NONE YES

Claims 1-54 NO

Industrial applicability (IA)

Claims 1-54 YES

Claims NONE NO

2. Citations and explanations:

Please See Continuation Sheet

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
PCT/US05/43705

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

V. 2. Citations and Explanations:

I. Claims 1-2, 16, 30, 37-38, 44-45 and 50-51 lack an inventive step under PCT Article 33(3) as being obvious over Welton (Pub. No.: US 2004/0218741 A1) in view of Joyce et al. (Pub. No.: 2004/0577334 A1).

Regarding claims 1-2, 16, 30, 35, 37-38, 44-45 and 50-51, Welton teaches a platform and a method for processing prepaid service transaction. Welton teaches the platform, as shown in figure 2, such as the "Issuer" or "Card Issuer" 202 comprising the Issuer Processing System 210, Service Provider ID Database 214 and Prepaid Card Database 212 (see paragraphs [0031] and [0032]). Welton further teaches that the "Card Issuer" or platform has different interfaces for receiving different transaction requests for different types of prepaid services from POS terminals such as POS terminal of Card Retailer 206 or from Card Customer 208, and routing the requests to corresponding supply interfaces associated with types of prepaid services (see flow chart in figure 3, paragraphs [0033]-[0043] and [0047]-[0050]). Welton further teaches that the platform may operate as a conduit, which communicates simultaneously with a plurality of different providers for querying their identifiers (see paragraph [0060]).

It should be noticed that Welton teaches the "virtual prepaid card" is assumed to be obtained or purchased at the retail store or somewhere prior to fulfill the credit by contacting the issuer 202 see paragraph [0047]. Welton fails to clearly teach the "prepaid card" being obtained or purchased online with PIN information provided directly from a prepaid service provider via one of the supply interface in response to one of the transaction requests. However, however, Joyce et al. (Hereinafter, "Joyce") teaches an enhanced communication platform, as shown in figure 1, comprising two different supply interfaces: one called Network manager 104 for providing different communications services to subscribers and the other interface called Call Manager 102. The Call Manager 102, as shown in figure 2, operates as a conduit which interfaces to different sales agents each presented card prepaid providers to provide card with PINs associated with prepaid services providers (see paragraphs [0084], [0091] and [0106]-[0109]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of the features of the "virtual prepaid card" being obtained or purchased online with a PIN information provided directly from a prepaid service provider via one of the supply interface in response to one of the transaction requests, as taught by Joyce, into view of Welton in order to provide delivery of advanced communication services to customers, without use of PIN access cards at individual cost to a local telephone company, service provider, or the subscribing customer.

Regarding claim 3, Welton further teaches limitations of the claim in paragraph [0034] and Joyce in paragraph [0106].

Regarding claim 4, Welton further teaches limitations of the claim in paragraphs [0031] and [0033]-[0034].

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Regarding claim 5, Joyce further teaches limitations of the claim in paragraph [0089].

Regarding claims 7-9, 12-15 and 17, Welton further teaches limitations of the claims in paragraphs [0056]-[0040].

Regarding claim 18, note the call center agent 70 remotely connected to and requested new PIN for an access PIN card from the Card Manager (see paragraphs [0086]-[0089]). Regarding claims 10-11, Welton teaches limitations of the claims in paragraphs [0031]-[0034].

Regarding claim 18, note in Joyce references, the call center agent 70 remotely connected to and requested new PIN for a access PIN card from the Card Manager (see paragraphs [0086]-[0089]).

Regarding claim 19, Joyce further teaches limitations of the claim in paragraph [0109].

Regarding claims 20-21, Joyce further teaches limitations of the claims in LAN/WAN 57 of figure 2.

Regarding claims 31-34, Welton teaches limitations of the claims in paragraphs [0038]-[0040].

Regarding claim 36, Joyce teaches limitations of the claim in paragraphs [0106]-[0109].

Regarding claims 39-42, 46-49 and 52-54, the rejections of the claims are set the same as in claims 2-15 above.

II. Claim 6 lacks an inventive step under PCT Article 33(3) as being obvious over the prior art as applied in the immediately preceding paragraph and further in view of Dagelet, JR. (Pub. No.: US 2003/0236755 A1).

Regarding claim 6, Welton and Joyce, in combination, teaches all subject matters as claimed above, except for the feature of encoding the request messages in formats correspondence to types of prepaid services. However, Dagelet, JR. teaches such features in paragraphs [0013] and [0078] for security purposes.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the feature of encoding the request messages in formats correspondence to types of prepaid services, as taught by Dagelet, JR., into view of Welton and Joyce in order to provide security during transmissions.

III. Claims 1-2, 16, 30, 35, 37-38, 44-45 and 50-51 lack an inventive step under PCT Article 33(3) as being obvious over Welton (Pub. No.: US 2004/0218741 A1) in view of Olmstrom et al. (Pub. No.: US 2003/0050045 A1).

Regarding claims 1-2, 16, 30, 35, 37-38, 44-45 and 50-51, Welton teaches a platform and a method for processing prepaid service transaction. Welton teaches the platform, as shown in figure 2, such as the "Issuer" or "Card Issuer" 202 comprising the Issuer Processing System 210, Service Provider ID Database 214 and Prepaid Card Database 212 (see paragraphs [0031] and [0032]). Welton further teaches that the "Card Issuer" or platform has different interfaces for receiving different transaction requests for different types of prepaid services from POS terminals such as POS terminal of Card Retailer 206 or from Card Customer 208, and routing the requests to corresponding supply interfaces associated with types of prepaid services (see flow chart in figure 3, paragraphs [0033]-[0043] and [0047]-[0050]). Welton further teaches that the platform may operate as a conduit, which communicates simultaneously with a plurality of different providers for querying their identifiers (see paragraph [0050]).

It should be noticed that Welton teaches the "virtual prepaid card" is assumed to be obtained or purchased at the retail store or somewhere prior to fulfill the credit by contacting the issuer 202 see paragraph [0047]. Welton fails to clearly teach the "prepaid card" being obtained or purchased online with PIN information provided directly from a prepaid service provider via one of the supply interface in response to one of the transaction requests. However, Lowever, Olmstrom et al. (Hereinafter, "Olmstrom") teaches a system and a method for refilling mobile telephone prepaid phone cards via mediums including a computer network and refill terminals located at retail shop. Olmstrom teaches a distributor operates as a conduit which interfaces to different sales agents (i.e., telecommunication network operators, retailers, etc.) each prescribed card prepaid providers to provide card with refill codes or PINs associated with prepaid services providers (see paragraphs [0049]-[0054] and [0061]-[0063]).

Therefore, it would have been obvious to one of ordinary skill in the art the time the invention was made to incorporate the teachings of the features of the "virtual prepaid card" being obtained or purchased online with a PIN information provided directly from a prepaid service provider via one of the supply interface in response to one of the transaction requests, as taught by Olmstrom, into view of Welton in order to provide delivery of advanced communication services to customers, without use of PIN access cards at minimal cost to a local telephone company, service provider, or the subscribing consumer.